

ABSTRACT

A method and apparatus are disclosed for reducing a transmission rate for retransmission of a current frame in a wireless communication system. The reduced transmission rate increases the probability that the current frame is correctly transmitted and acknowledged. The transmission rate is progressively reduced for the current frame to avoid the expiration of the frame's retry count, while not affecting the transmission rate of subsequent frames. The next frame should be transmitted at the highest rate permitted by the signal quality. A disclosed retry count expiry avoidance algorithm increases the reliability of a retransmission by lowering the transmission rate for the current frame when an acknowledgement is not received. When an acknowledgement is not received, the transmitting station proceeds to a retransmitting state where the transmitting station first attempts to retransmit the frame at the same rate. When the number of "equal rate attempts" is exceeded, the retry count expiry avoidance algorithm enters to a fallback state, where the transmission rate is decreased in a progressive manner.

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